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Conant, Charles Arthur

Effect of the war on the supply of investment...

[New York?]

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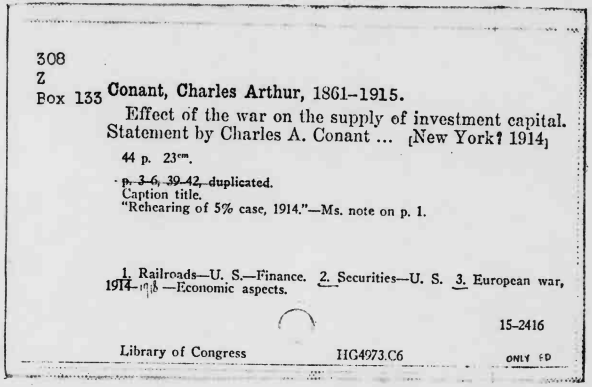

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EFFECT OF THE WAR ON THE SUPPLY OF INVESTMENT CAPITAL.

Statement by CHARLES A. CONANT, Author of "The Principles of Money and Banking"

The effect of the present war in Europe and the East on the supply of capital available for investment will inevitably be more serious than anything which has occurred within the memory of the present generation, or since saving for investment and the development of railway and machine production became an important factor in economic life. The modern world has become so accustomed to finding the necessary capital for any important enterprise which promises benefit to the community that it has almost lost the sense of the rigid limitations imposed upon production by the supply of free capital. As it was put by Bagehot in 1873, in the comparative infancy of the modern financial mechanism, in his famous work, "Lombard Street":

> "We have entirely lost the idea that any undertaking likely to pay, and seen to be likely, can perish for want of money; yet no idea was more familiar to our ancestors, or is more common now in most countries. A citizen of London in Queen Elizabeth's time could not have imagined our state of mind: he would have thought that it was of no use inventing railways (if he could have understood what a railway meant), for you would

not have been able to collect the capital with which to make them."

So accustomed are we to the smooth functioning of the mechanism of the money market, by which railway extensions and new industrial enterprises find the capital needed to carry them out from the continuous stream of private savings, that we do not realize the full effect of the stoppage of this stream or its diversion to different channels. The mere suspension of investments in the United States by European capitalists was one of the provoking causes of the panic of 1893. The result of such investments had been, according to the declaration of M. Raffalovich, the eminent Russian economist, that:

> "The true indebtedness of the United States abroad had been completely hidden by the influx of foreign capital. What the nation had to pay in interest on railway and municipal obligations and industrial investments had never been felt as a charge upon commerce, in consequence of the compensation which resulted from the uninterrupted entry of capital invested by Europe." (*Le Marché Financier en 1893-1894*, p. 255.)

The fact that European financial centers endeavored to call back a small part of the capital which they had put into American securities was one of the chief causes of the fall in prices on the New York Stock Exchange during the week before the outbreak of the present war

Sept 22, 1914 RET

in Europe and of the closing of the Exchange on the morning of July 31st. The same influence,—the refusal of European capitalists and investors to continue credits to this country is the cause of the pressure for gold, the formation of the recent gold pool, and a rate of exchange on London far above the usual gold shipping point. Refusal of European investors to advance additional funds to Brazil has caused a moratorium there, while in Chile like conditions caused a sharp fall in the rate of exchange on London, which measures the local value of their paper money.

The nations at war have been able thus far to rely to a considerable extent upon cash already on hand or upon advances in the form of credits by their national banks. The pressure on the supply of free capital which now exists will be intensified in years to come when the warring nations issue permanent loans to meet these temporary advances from the banks and when such loans to the amount of thousands of millions begin to weigh upon the market for securities.

It is my purpose to show that,—

(1) The cost of the war, if it lasts approximately a year, will not be materially less than $15,000,000,000.

(2) The demand for capital for purely war purposes, and for the settlements which succeed the war, will be so great as to absorb an amount equal to the entire savings for investment made in all civilized countries for a period of several years.

(3) The effect of this abnormal demand for capital, which is being consumed without economic profit, will be to raise the rate of interest on investment securities higher than it has been for many years.

(4) The fact that such enormous sums to pay the costs of the war are sought almost exclusively by means of government loans will make it impossible to obtain capital for other purposes, except at a rate of interest considerably higher than that paid by governments.

(5) The financial disturbances which will occur during the process of distribution of these government loans to investors, extending over several years, will involve the sale on the American market of railway and industrial securities now outstanding to an amount which will in itself absorb so much of the new capital available in the United States, that it will be extremely difficult to obtain any for new enterprises.

(6) If, therefore, American railways and industrial enterprises are to obtain any new capital whatever, during the next few years, it will be necessary to make issues of securities very attractive, not only in respect to the rate of interest, but in respect to the evidence that the interest and dividend payments are absolutely secured by adequate earnings.

Cost of the European War.

The present war in Europe, if it lasts a year, will probably absorb fifteen thousands of millions of dollars of capital, which would otherwise be available for railway and industrial development. As practically the whole of this expenditure will be consumed, not to say wantonly wasted, it cannot fail to have a great effect upon the supply of capital available for investment, not only during the war, but for many years after it is over.

The estimate of the cost of the war made several years ago by Prof. Charles Richet of the University of Paris, and reproduced by Dr. David Starr Jordan in his work on "War and Waste" (p. 177), was that a general European conflict would cost, approximately $50,000,000 per day, or to be exact, $49,950,000. These figures were based upon the participation of Italy and Roumania in such a war, and also included the disbursement of $6,800,000 to the poor left at home and about $2,000,000 for the destruction of property and for various other collateral objects. The figures did not include, however, the expenditure which might be required by Belgium.

From various facts which have developed during the progress of the war and consideration of the computations made by other experts, I am satisfied that the estimate of Prof. Richet is not greatly excessive for the average daily cost of the present war. Even with Italy excluded, Belgium and Japan have become parties to the conflict, and Italy, the Netherlands, Switzerland, Rou-

mania and Turkey have been put to heavy expenses for partial or complete mobilization.

Fortunately, we are now in possession of some figures of actual disbursement which throw a good deal of light on the problem. Estimates made in Germany near the end of September, at the time of the flotation of new loans which were subscribed to the amount of $1,115,182,225, put the daily cost of the war to the Empire at about $5,000,000. These figures have been subjected to analysis by French critics, who seem to make out a case for considerably heavier expenditure. They contend, from the experience of other recent wars, that the average cost of maintenance per man cannot be less than $2.50 per day. The estimate of the German general staff, made many years ago, was upon the basis of an average daily cost of only $1.50, which would have represented, for the maintenance of three million men alone, without counting other factors of expenditure, a daily outgo of $4,500,000. If, however, the cost per man were raised to $2.50, the outgo for this purpose alone would rise to $7,500,000 per day, and obviously not less than $1,000,000 per day should be added for ammunition and many other objects of expenditure.

For France, an interview published on October 3rd with M. Ribot, the Minister of Finance, which bore every mark of semi-official authenticity, stated that actual disbursements for the first sixty days of the conflict had been $420,000,000. This would afford an average of exactly $7,000,000 per day. Obviously, French expenditures, in spite of the sacrifices and losses suffered on French soil, would be materially less than those of Germany because of the smaller population of France and her relatively smaller army.

For England, we know that Treasury bills have been sold to the amount of about £60,000,000. It was stated on September 11th, in London, that the Treasury returns showed that war expenditure up to that date, representing about thirty-five days of active operations, had cost a little less than one-third of the first £100,000,000 voted for the war. This would represent a daily cost to the British government, up to that time, of a little less than $4,000,000 per day; but English expenditure has undoubtedly been growing steadily with the arrival of the Indian, Canadian and Colonial troops in Europe, and the issues of Treasury bills, if their proceeds have been already expended, would indicate an average outgo approaching $5,000,000 per day.

For Russia, data regarding actual war expenditure are scanty. With her enormous forces, however, it could hardly be less in the aggregate than the daily expenditure of Germany, although the cost per man would probably be considerably lower. For Austria also data are lacking, but a reasonable estimate of the ratio of her military equipment to that of the other powers would justify a war expenditure of about $5,000,000 per day. If Belgium has been spending $2,000,000 per day, we should have from these items alone a total of $36,000,000 per day, without making any additions for the costs of

mobilization in neutral states. If these costs are considered, with the obvious increase of outgo to Great Britain since the estimate of September 11th, a total cost of $40,000,000 per day seems to be well within the limit of conservative calculation.

At the rate of $40,000,000 per day, the cost of the war for a year would reach $14,600,000,000. It is not unlikely, moreover, that the original estimate of Prof. Richet of $50,000,000 per day falls short of covering fully the loss occasioned by the suspension of productive power in mills and factories and the destruction of industrial establishments, machinery, railway lines, terminals, and other parts of the equipment of industry and transportation. In a discussion held at the Society of Political Economy of France on October 6th, Prof. Paul Leroy Beaulieu, who stands perhaps at the head of living French economists, is represented as computing the total cost of the war at $1,200,000,000 per month, which would work out at about $14,400,000,000 per year. Prof. Yves Guyot, who ranks side by side with his associate among the leaders of the classical school of political economy in France, is represented as putting the amount very much higher.

All of these estimates, even the most modest, reveal an appalling destruction of capital for war purposes, which can hardly fail to amount to the direct expenditure of more than $15,000,000,000 if the war should last a year, besides the loss of other vast sums resulting from destruction of property, the impairment of industrial

production, and the derangement of the machinery of distribution.

If the war costs $15,000,000,000, it will represent a sum greater than the entire capitalization of the railways of the United States, built up from the infancy of railroading to as recent a date as June 30, 1906, when the figures of the statistician of the Interstate Commerce Commission were $14,570,421,478. It will represent more than three times the total burden of pension disbursements imposed upon this country from 1866 to the present year, which are put by a recent statement given out in Washington at $4,633,511,926.

In computing the probable cost of the war for a year, I do not lose sight of the fact that there is a possibility of an earlier ending, and that this would affect in some degree the amount of capital destroyed and subsequently taken from the money market by the issue of public loans. In view of the vast forces which have been mobilized in the chief contending countries, however, and the contracts which have undoubtedly been made ahead for additional supplies of clothing, ammunition and other war equipment, it is obvious that even if the conflict should end within a much shorter time than a year, a large portion of the direct expense would continue to run on during the process of reducing the military forces to a peace basis, and many months would be required for restoring to normal conditions mills, railways, shipping and other parts of the economic fabric which have been injured or destroyed. Even in the case of so pacific a country as

the United States, the fiscal year ending June 30, 1866, following the Civil War, showed expenditures for the War and Navy Departments, not including pensions, amounting to over $326,000,000. While this was only about 30 per cent. of the war expenditures of the fiscal year 1865, it was more than nine times the expenditures of about $35,400,000 made by these two departments during the fiscal year 1861, when the war had barely begun.

It is evident, therefore, that even if the cessation of the war within the next two or three months should permit some reduction of the cost of operations based upon estimates for a year, it would still leave great sums, probably not less in amount than $10,000,000,000, to be raised by loans and taxation by the contending states.

Amount of Capital Annually Available for Investment.

In order to determine how serious will be the effect upon the market for free capital of a war expenditure of $15,000,000,000, it is necessary to ascertain what ratio this amount bears to the annual saving of capital for investment. In undertaking to calculate the amount of such saving, the starting point must be the amount which is absorbed by new issues of securities each year under existing conditions. No doubt such a calculation is subject to qualifications, which will be presently referred to. Other savings, however—such as those which might be applied by a railway to improving its road-bed and

other portions of its plant out of maintenance charges; the addition by a farmer of a new wing to his barn; additions to individual stocks of jewelry or works of art, or other comforts added to the home—cannot be considered as constituting a part of that saving which is employed normally in the purchase of income-earning securities.

Undoubtedly, there will be a tendency in the countries which have taken part in the war to reduce the employment of saving in these other directions—to cease additions to barns and out-houses, to leave the home unshingled and unpainted, to deprive one's self of new luxuries, and to reduce the purchase of agricultural implements, even for renewals of equipment—in order to apply the money thus saved to patriotic subscription to the new national loans. These additions to the amount of capital which would appear in the investment market under normal conditions will be offset, however, to a large extent, by the destruction of property which the war has wrought.

Passing over other aspects of the subject for the moment, I wish to limit myself to the statistics of capital which is known to be normally available for investment in securities. These statistics, as compiled year by year by the Belgian financial publication, *Le Moniteur des Intérêts Matériels,* put the amount of new capital thus available, on the average of the last few years, at about $4,000,000,000 per year. This average has risen materially with the great increase in the capacity for machine

production in recent years, which has been the result of the savings and the new constructions of previous years.

According to these figures of the Belgian publication, the total issues of new securities throughout the world prior to 1896 rarely reached $2,000,000,000 per year. There was a short period of inflated prices and speculation from 1871 to 1873, when the figures ran to about $2,500,000,000; but after the panic of 1873, there was only one year (1889) up to 1894, when total issues of $2,000,000,000 were attained.

For the ten years ending with 1893, the annual average issues reported were about $1,250,000,000.

For the ten years ending with 1903, the amount was more than doubled, the annual average issues reported being about $2,596,000,000.

For the ten years ending with 1913, annual average issues rose above $4,000,000,000. These figures include refunding operations, but it is of the highest significance, as an indication of the increased rate which has been demanded in recent years for capital, that these refunding operations have become relatively small in amount since 1906, the year in which the government of Italy succeeded in slightly reducing the rate of interest on the Italian public debt.

The following table gives the issues as reported for each year from 1896 to 1913:

Issues of Securities

From Le Moniteur des Intérêts Matériels.

Year.	Total Issues.	Conversions.	Net Additional Issues.
1896.....	$3,227,359,000	$1,465,451,000	$1,761,907,000
1897.....	1,852,173,000	132,182,000	1,719,991,000
1898.....	2,034,766,000	316,530,000	1,718,235,000
1899.....	2,175,823,000	120,873,000	2,054,949,000
1900.....	2,289,642,000	.....	2,289,642,000
1901.....	1,917,916,000	.....	1,917,916,000
1902.....	3,597,489,000	1,639,921,000	1,957,568,000
1903.....	3,534,248,000	1,687,729,000	1,846,519,000
1904.....	2,785,138,000	353,445,000	2,431,693,000
1905.....	3,688,124,000	323,487,000	3,364,637,000
1906.....	5,126,014,000	1,991,526,000	3,134,488,000
1907.....	2,961,378,000	43,908,000	2,917,470,000
1908.....	4,092,255,000	63,541,000	4,028,714,000
1909.....	4,743,200,000	474,090,000	4,269,110,000
1910.....	5,101,000,000	687,700,000	4,413,300,000
1911.....	3,756,900,000	143,100,000	3,613,800,000
1912.....	3,896,590,000	132,800,000	3,763,790,000
1913.....	4,043,800,000	118,150,000	3,925,650,000

If the cost of the war for one year has to be paid out of the amount of annual savings indicated by these figures, then every dollar of new capital for approximately four years will be absorbed in government loans, and there will not be a penny available in any financial market for building a railway spur, putting up a new station or ter-

minal out of capital account, adding a bobbin to the equipment of woolen and cotton mills, or making a single public improvement in the City of New York or any other municipality, except out of current revenue.

This, of course, is an extreme statement of the case, which will not be fully realized in fact. It is probable that the estimate made by the Belgian publication falls considerably below the mark of saving available for investment, especially in the United States. The increase in capital and bonded indebtedness of American corporations, shown by the returns of the corporation tax, amounted for 1911 to $3,628,910,358, and for 1912 to $4,257,067,197. These figures, on their face, seem to indicate that the increase in capitalization in this country alone is nearly equal to that reported in the Belgian publication for all countries. The figures of the Commissioner of Internal Revenue, however, are subject to serious qualifications,—not of fact, but of interpretation. They cover every organization in corporate form in the United States. Some of them involve large duplications,—the formation of corporations to hold the securities of other corporations,—which makes no addition to existing wealth. A very large proportion, moreover, represent small private partnerships, put into corporate form for convenience. It is not possible that the increases of capital made by such corporations should be diverted in the aggregate, even by the most alluring terms, into investments which may properly be classified as negotiable securities.

Some light upon the ratio of securities which are really negotiable to the whole amount reported to the Commissioner of Internal Revenue is afforded by the listings on the New York Stock Exchange. It cannot be contended that such listings absolutely limit the amount of securities which are readily negotiable, because they do not include securities dealt in on the curb; those of local importance only, dealt in on other exchanges; nor the bulk of municipal or new public utility issues. The total par value of securities listed on the New York Stock Exchange on February 15, 1914, was $25,975,000,000. To this sum may fairly be added the amount of municipal bonds of cities of over thirty thousand inhabitants which, according to the latest report of the Census Bureau, amounted to $2,507,000,000. A certain proportion also of railway securities do not appear on the Stock Exchange listings; the same is true of many traction and electric companies, and of the capital of all but a few national and state banks and trust companies. These securities, which may be justly classified as more or less active, would bring up the total of securities of marketable types in the United States to between $35,000,000,000 and $40,000,000,000, or about two-fifths of the amount of $96,437,744,084, which is the total volume of corporate securities returned to the Commissioner of Internal Revenue for 1912.

In computing the ratio of increase in capital thus invested, it is proper to consider that the corporations which issue securities which are readily marketable and

are included in the $40,000,000,000 just estimated, have probably not been able to make increases of capital at the same rate as the smaller corporations, in which the individuals interested have not been so seriously affected by the return upon capital in the general money market. If, however, it is admitted that the ratio of increase in strictly negotiable securities has been the same as for all forms of wealth which are in the form of shares and bonds, we should arrive at an increment of annual increase in the United States in these negotiable securities, of about $1,600,000,000, which is about the amount of new securities created by the larger corporations as reported annually by the financial journals.

In dealing with the question how large a proportion of this total fund of capital available for investment will be absorbed by war loans, and how much can be diverted to its old mission of building up and extending the machinery of industry, there are inevitably many factors to be considered on both sides of the problem. Undoubtedly, as already indicated, the patriotic spirit of the peasant, the mechanic and the small shop-keeper in France, Germany and England will lead them to dip into their little hoards of actual currency and other savings to make subscriptions to the national loans, which would not be made ordinarily to railway and industrial issues. Undoubtedly, also, many sums which would be applied to improving and extending the facilities of the farm, the tool-box and the shop, will be applied to the purpose of saving the national credit and meeting the public obligations. From these sources will come considerable amounts which will be added to the net fund available for investment.

On the other hand, it cannot be assumed that the entire amount which is available for investment will be applied to the new public loans. Where new capital issues are made essentially for keeping pace with industrial development, for enlarging mills whose product is in increased demand, and especially for meeting the growth of equipment for new population in the countries which have not been decimated by war, considerable sums will be applied to investments other than the national loans. This will be especially true of those corporations whose securities are distributed among the original holders and where the direct profit on the output makes the market rate for money a factor more or less negligible.

What part the railways will be able to play in wresting a portion of the world's savings from the outstretched hands of the powers which have been blowing away thousands of millions in powder and ball, becomes an interesting consideration. They must come into the open market and bid against the greatest states in the world for some scanty portion of the supply of investment capital.

In this connection, the fact must not be overlooked that the war has practically brought to a standstill, for the present, in many parts of Europe, any saving of capital for investment. If the war should soon end, and the men now employed in trying to kill each other were able

to return promptly to the ranks of industry, a considerable stimulus would be given to the renewal of effective production and a margin of savings for investment might emerge. On the other hand, there will be delay and considerable cost in re-establishing the important textile and other industries of Northern France, of Belgium, and of other sections which have been the victims of hostile armies.

Already the powers at war have appealed to the public for such advances of capital as can be obtained under existing conditions. Whatever resources were in governmental hands at the outbreak of the war were quickly exhausted, or at least reduced to a point which called for additional contributions. Germany has already offered loans amounting to more than $1,000,000,000, and it is reported that half of this sum has been actually paid up. Details are lacking of the form and manner of such payments, but it will probably be found that the subscribers have been able to make them, in many cases, only by borrowing on other securities from the Imperial Bank or from the special loan banks which have been set up to make advances on goods and other forms of private capital. While such measures for transferring capital to the government are effective temporarily, they do not have the character of an ultimate distribution of the loan among investors, and the amount of securities paid for in such a manner cannot be construed as ceasing to be a possible burden upon the money market in time to come.

England and France have thus far been more modest in their calls upon the open market, England having placed about £60,000,000 in Treasury bills and France having offered a national defense loan for popular subscription. The English issues are short term bills which have been largely absorbed by the banks; in the case of the French issues it is not asserted that more than about $45,000,000 have yet been taken. In the case of Germany and France, and to some extent in the case of England, the money immediately required for war purposes is obtained from the central bank of issue, partly in the form of additional issues of bank notes. The central bank in both France and Germany was promptly authorized to increase its issues by large amounts as soon as the war broke out, and some of the restrictions on the Bank of England circulation were relaxed.

A limit is soon reached in the issue of bank notes, beyond which financial disturbances are involved, which the financiers of either Germany and France are too enlightened to invoke unless under the compulsion of dire necessity. Put briefly, the form of these temporary loans does not affect essentially the amount of saved capital which will be demanded to cover the cost of war.

What Rate of Return Will be Demanded by Capital?

The price of capital is subject, like other commodities, to the law of supply and demand. A large supply and a slack demand compel the owner to make concessions in

order to obtain an income from his savings; a large demand and a scanty supply enable the owner to charge the highest price which he believes the necessity of the borrower will compel him to pay.

It follows, almost inevitably, that the great demand caused by the war loans will raise the rental price for the use of capital to a high rate during a considerable number of years to come. A demand for government purposes for loans of from ten to fifteen billions of dollars, representing three times the usual annual savings of the world, must inevitably put the lender in a position of strength and the borrower in a position of weakness. Already the influence of these conditions is reflected in the prices of securities on the bursting of the recent war cloud, and in the prices which have prevailed in the restricted market which has existed since the closing of the exchanges. How seriously values were affected may be judged from the following summary of price fluctuations printed in the Wall Street Journal of October 5:

> "At closing prices Thursday, July 30, stocks were close to twenty points under their high prices for 1914, and the high prices reached in 1914 were, in the large majority of cases, well under the high levels reached in the past several years.
>
> "Fifty railroad stocks selected closed Thursday, July 30, at an average price of 69.5, compared with an average closing price Wednesday, July 29, of 73.1, and an average high for 1914 of 88.5. Fifty industrials closed July 30, at 63.4, July 29, at 68.2, and the average high for 1914 was 79.4."

Much has been done since the outbreak of the war to overcome the first flurry of panic, to supply the country with an adequate medium of circulation, to restore normal conditions to the foreign exchanges, to re-open old channels and to find new channels for trade. Notwithstanding these facts, it has thus far been found impossible to open the stock exchanges by reason of the additional depreciation of prices which it is universally felt would occur if the market were now opened to free offers of securities,—a fact which has already been demonstrated by the decline since July 30 in standard securities under the limited trading permitted by the exchange authorities. This fact is highly significant of the general conclusion of the financial community, that the rate for the rental of capital has risen permanently.

The disturbing effect of government issues upon the money market was pointed out by a French economist as long ago as 1863, when the demand for money for other purposes was a mere fraction of what it is in the modern world of finance. In his standard work on money and credit, M. de Puynode writes as follows:

> "Often it has been remarked that an industrial crisis habitually follows public loans. This is easily explained, because every loan withdraws capital from the channels of production, to pour it into the sterile chests of the Treasury. It is like the water which disappears from the wheel which it makes revolve; it is like the wind which fails before the sail which until then it has filled. Thus, the crisis of 1825 and 1826 in England, al-

though it arose from diverse causes, corresponded to the enormous loans of that country to American states" (M. Gustave de Puynode, *De la Monnaie, du Crédit et de l'Impot,* Paris, 1863, p. 49).

A striking proof that the time has gone by at which even municipalities of good standing can borrow at the old rates of 4 or 4½ per cent., is afforded by a list of bond offerings published in the Commercial and Financial Chronicle of August 28th last. This list gives the names and amounts of approximately one hundred municipal loans offered to the public during August, for which purchasers were not found. While in a few cases the interest offered was 4 or 4¼ per cent., and in other cases 4½ per cent., even a rate of 5 per cent., which was offered by more than half of these communities, failed to make their securities sufficiently attractive to find purchasers.

If this occurs in the green tree, when the war is hardly begun, at what rate may these municipalities expect to borrow when the pressure of war expenses of thousands of millions begins to be felt upon the money market?

One of the most significant and indisputable indications of the rise in the rate for capital is afforded by the quotations of first-class government securities in Europe during the last few years. I present here a table which was submitted to the Interstate Commerce Commission in the hearing last December, taken from the well-known annual publication *Le Marché Financier,* which is edited by M. Arthur Raffalovich, the eminent Russian economist, who is the financial agent of his government at

Paris. This table, which was originally brought down to the close of the year 1912, I have supplemented by figures for the same securities at the end of May or the beginning of June of the present year. M. Raffalovich shows a decline in French perpetual 3 per cents., between the years 1908 and 1912, of 6½ per cent. of their par value; in German 3 per cents., of 7.2 per cent.; and in British consols, of 13 per cent. Only Russian 4 per cents. showed an advance down to the close of 1912, due to the improvement of Russian national credit, which had not, however, brought them up to parity with the issues of richer nations. The quotations for these four types of securities did not change radically during the year 1913 and the first half of 1914, except that English consols continued their declining tendency, and Russian 4 per cents. showed a considerable decline from the closing price of 1912 and a decline of nearly five points from the average quotation of 1912. The table is as follows:

Average Quotations of Government Securities, 1908-1912.

Year.	French 3 Per Cents.	German 3 Per Cents.	English 2½ Per Cents.	Russian 4 Per Cents.
1908	96.2	85.2	86.04	76.7
1909	97.8	85.8	83.8	84.7
1910	98.0	84.4	81.0	92.6
1911	95.6	83.6	79.3	93.75
1912	89.7	78.0	73.0	93.90
1912, Dec. 31....	89.5	77.0	75.25	91.0
1914, May-June.	89.75	77.4	74.7	88.95

(A Raffalovich, *"Le Marché Financier,"* 1912-1913, page 230.)

It is true that short-term money can be obtained in London at the present time at comparatively low rates. These rates, however, are due to conditions which are temporary and artificial. Credit is plentiful for the moment in the London market, because the usual facilities for lending surplus short-term credit on the Continent are practically cut off. Industry and finance have ceased to function in their usual manner at Paris as well as at Berlin, Hamburg and Vienna, and the result is a temporary accumulation of floating capital in the London market for which the joint stock banks cannot find ready employment. Even this position, however, is due primarily to the promptness with which the British government came to the rescue of a frightened market at the beginning of the war and agreed to make good to the Bank of England, the losses which it might sustain if it entered resolutely and broadly upon the policy of rediscounting for reputable clients. The result was that the joint stock banks, which were on the point of shutting down their facilities, in much the same manner as our isolated local banks in the panics of 1893 and 1907, promptly rediscounted large masses of paper at the Bank of England. In this way, they enlarged their own funds by deposit credits at the Bank of England, which they could afford to advance on call or for short terms in the London market. Practically, however, they will only make such advances to firms of exceptional standing and from whom they are confident that they can recover the money at any moment. If the government had not intervened with this guarantee to the Bank of England, the constraint prevailing in the London market might be similar in character to that prevailing in New York, and the rates even for idle money on call nearly as high.

Already rates for money in this country, where we have not undertaken to purchase any war obligations, have risen to 6 to 8 per cent. for money on call and 6½ to 7 per cent. for commercial paper. Practically every European bank of issue raised its discount rate with the outbreak of the war, and the Bank of England rate, after being for a few days at 8 and 10 per cent., was finally fixed at 5 per cent., at which rate it is still maintained.

It is impossible for the New York money market to take advantage of the temporary congestion of short term credit in London for reasons similar to those which prevent loans on the Continental money markets. The United States is at peace with England, as England is with France, but the risks and high cost of transmitting gold and the fact that credit has been impaired make it impossible for American bankers to obtain open credits from London banks in the manner in which it is given in times of tranquility and general confidence. The London rate is, therefore, a purely local incident, due to the fact that the money cannot be gotten out of London under conditions which are considered by English bankers to be safe and profitable. If it was practicable to establish the usual credit relations with other financial capitals, this surplus of funds would be absorbed and the rate for short term money in the open market would probably rise

at least as high as the discount rate of the Bank of England, which, after being for a few days at 8 and 10 per cent., was finally fixed at 5 per cent., at which rate it is still maintained.

The Preference for Government Securities.

Reference has been made thus far chiefly to government issues, because financial experience has shown that government securities, when issued by states of first-class credit, usually rank higher, in the ratio of the price to the return upon them, than railway or industrial securities. One has only to compare the quotations and the net return upon government securities issued in the United States, Great Britain, France, Germany, Belgium or Russia with the quotations for railway and industrial securities, to appreciate the standing which government securities have attained with the investor. If the great pressure for capital which is now taking place and which will follow the war should reduce government obligations to the level of a five per cent. return, it could hardly be expected, other things being equal, that railway and industrial enterprises would be able to sell securities paying a less net return than six per cent. for the best and seven or eight per cent. for those which are not first mortgages or otherwise well secured.

No more striking evidence of the difference in the popular standing of government issues and even the best railway issues can be found than a circular letter issued

only a few days ago by a New York trust company, offering at the same time the new 6 per cent. revenue bonds of the City of New York, and the six months and one-year notes of the New York Central and Hudson River Railroad. The City obligations were offered at rates ranging from 5½ per cent. down to 4.95 per cent. On the same sheet was an offer of the five per cent. obligations of one of the greatest railway systems in the country, convertible in six months or one year into cash, at a rate to pay the investor 6½ per cent.

Another case in point is the fact that the Erie Railroad has placed $4,550,000 in one-year notes to meet an issue which is just maturing, and that it is putting out the amount at a nominal rate of 5 per cent. and a selling price of 97½, making the actual cost of the money to the company 7½ per cent., exclusive of charges and commissions. Highly significant also is the fact that the syndicate formed in the spring of 1914 to distribute $40,000,000 in 4½ per cent. New York Central bonds, running for a hundred years, and which offered them to the public at 95¾, has been compelled to reduce the price on the unsold balance, to 89½ and interest. Here again we have the evidence of this offer plainly set forth in a circular letter issued under date of October 10th by the Guaranty Trust Company of New York, which contains the following statements:

> "We are now in a position to sell a very well secured bond, legal for New York savings banks and trustees, at 89½ and interest, to yield better than 5%.

"These bonds were originally offered, and a large percentage of them sold at 95¾ and interest, yielding about 4.70%. This, you will note, is a decrease of 5¾% in the price, and an increase of more than 3/10% in the investment yield.

"The bonds to which we refer are the New York Central & Hudson River Railroad Improvement & Refunding 4½'s of 2013. These bonds, a circular descriptive of which is enclosed herewith, we consider very well secured, and do not hesitate to recommend them as a particularly attractive investment."

Disturbing Effects of New Public Issues.

The period of transition, during which the distribution is being made of the new public securities issued to meet the expenses of the war, will involve in itself some highly critical features for the money market, apart from the net demand for new capital. It is the usual experience with large public issues that they are many times over-subscribed and that the preparations for the initial payments lock up great sums of money and credit, which are sometimes partially released after the distribution of the securities is made to subscribers. During the entire period of distribution, however, until the securities reach the hands of ultimate investors, they are apt to constitute a heavy burden to the assets of the commercial banks, which interferes seriously with the employment of such assets in other operations. These conditions in themselves tend to create disturbances which deter in-

vestors from subscribing to other new issues and make it difficult even for banks to underwrite such issues and make advances on them to clients. The economics of the subject, with special reference to the French loans to pay the war indemnity to Germany, are set forth by M. Paul Leroy Beaulieu, the eminent French economist, in the following terms:

"One of the effects of a great public loan is to immediately reduce in a large degree this fund of circulating capital [for industrial purposes], or at least to prevent it from increasing by means of the national savings in the proportion in which it would have accumulated if the loan had not been made. We have recently had on our hands our two great loans of two and three milliards, which were subscribed, but which for a long time were not completely distributed—that is, which remained for many years to a large extent in the hands of speculators, who intended to re-sell them in small lots to capitalists and to investors of all types to the degree that the national saving permitted such an absorption. Under these circumstances, what happened? Nearly all the savings which went on in the country were directed to the purchase of the securities of the loan, other securities being the object of very few transactions, and above all, new securities not being created."

(*La Science des Finances*, 6th Edition, 1899, Vol. II, p. 234.)

Nor were these conditions merely transitory. The

French economist presents figures showing the gradual transfer of bonds to the registered type, which led him to the conclusion that the loans of 1871 and 1872 had not been fully distributed until seven or eight years after they were issued. Between 1869 and 1876, according to these figures, the number of securities which were registered had not doubled, while that of securities to bearer had become eight or nine times the amount at the beginning.

Obviously, therefore, if the restricted issues of the French Republic, with a government loan of only about one thousand millions of dollars, was so disturbing to the market for securities, and its distribution to investors extended over a period of years, we have to look for a still greater and perhaps more prolonged disturbance in the distribution of from ten to fifteen billions of new securities as the result of the greatest of modern wars.

It was pointed out, in the discussion of this subject a year ago, that the money market was seriously disturbed, even at that time, by the pressure of the borrowings which had been made by the various states engaged in the wars in the Balkans during the autumn of 1912 and the early part of the year 1913. It was pointed out also that the expenditures made by the contending states had not yet been definitely financed, and were still weighing upon the markets of Paris, London and Berlin as an important influence in retarding the recovery of quotations for other securities. Even at that time mutual uneasiness existed among the powers and had resulted in the levy of a special capital tax for military purposes

by the Imperial Government of Germany and a counter move by France in the issue of a large loan.

The French loan was finally fixed at a nominal amount of 884,614,000 francs in *rentes* for 3½ per cent., to yield a return to the government of 805,000,000 francs or about $160,000,000. When the books were closed on July 7th last, the amount was forty times over-subscribed, but with the result of tying up seriously the floating capital in the money market. By reason of the requirement of a preliminary payment, the over-subscription locked up for a time nearly $600,000,000. The effect was to increase the discounts of the Bank of France within a week by about $250,000,000 and to increase advances on securities by $40,000,000. These heavy demands were apparently due to the fact that the joint stock banks, in order to make advances to their clients to subscribe to the loan, took large quantities of commercial paper to the Bank of France for re-discount.

The absorption of money market resources in the flotation of the new loan had a serious effect upon the quotations for gilt-edged securities. Although the murder of the Austrian Crown Prince at Sarajevo had already occurred, the event had not as yet grown to a cloud much "bigger than a man's hand," on the political horizon. Quotations for the principal national loans, however, reached during the week of July 10th, the following minimum quotations:

French perpetual 3 per cents	82.95
German 3 per cent. consols	76.37
British consols	75.82
Russian 4 per cents	87.90

All these quotations, when compared with those for a few weeks earlier (as they appear in another table in this statement), show a considerable decline. The figures are significant because they show the manner in which capital is absorbed by new government loans, and the resulting effect in depressing the prices of securities already outstanding. If the French market could be so seriously affected by an issue of $160,000,000, how can we measure the effect which would be felt if there were issues aggregating $15,000,000,000, nearly one hundred times as much as the issue of July 7th,—or even issues of only $8,000,000,000, or fifty times the amount of the issue of July 7th?

The effect of government issues in depressing prices of other securities was illustrated in a striking manner by the French indemnity loans of 1871 and 1873. The figures given below for the quotations of French railway securities show the prices in 1869, before the war with Germany; in 1870, when the depressing effects of military disasters were at their maximum; in 1871, the year of the first of the indemnity loans, and in 1873, the year of the larger indemnity loan:

Quotations for French Railway Bonds—October 30th.

Railway System	*1869*	*1870*	*1871*	*1873*
Eastern	335.50f	270.00f	296.75f	269.875f
Paris, Lyon, Medit.	331.00	285.00	298.75	266.50
Southern	327.625	282.50	299.75	271.50
Northern	339.125	300.00	306.875	279.875
Orleans	338.00	289.325	305.00	276.00
Western	329.50	292.50	296.125	270.625

(Leroy Beaulieu, *La Science des Finances,* Sixth Edition, Paris, 1899, Vol. II, p. 236.)

These figures show a decline in quotations of these French railway securities from just before the war in 1869 by about 20 per cent. in the autumn of 1873. It is significant that the decline was not greatest in 1870 or 1871, when French soil was occupied by a foreign conqueror and railway traffic was necessarily hampered and interrupted; it was greatest in 1873, when the French government was asking about $675,000,000 from the money market, and was thereby entering into active competition with private and corporate enterprise for the surplus supply of capital.

If so much preparation was necessary to float these smaller loans, and their influence upon quotations for other securities was so plainly felt, it may well be asked what would be the preparations for a flotation of many times these amounts. The answer is, in part, that it would be practically impossible to offer the aggregate of the new war loans at once. They would probably be spread over several years, as was the case with the two big loans issued by France to pay the war indemnity of 1870 to Germany. The first of these, for about $430,000,000, was offered for subscription in the summer of 1871 and the second, of about $675,000,000, was not offered until nearly a year later.

In the distribution of the loans which result from the present war, there will undoubtedly be as much co-operation as possible among the banking interests of all nations, even those of the powers now at war with each other. Even with the best of spirit, however, on the

part of international bankers, there will be difficulty in avoiding issues at different capitals which will compete with each other. In the case of the French indemnity loan, the other international money markets aided in the distribution. Foreign subscriptions alone to the second loan were more than seven times the total amount. They were largely speculative, however, and many were made by the great financial houses as a means of supporting their correspondents in Paris. Such support from abroad could not be counted upon if large public loans were being offered simultaneously in London, Paris, Berlin and Vienna. I say nothing of St. Petersburg, because it would probably be necessary to float a considerable part of the Russian loans in Paris or in other friendly markets.

New York would, of course, be called upon to do her share. Whether New York bankers, however, subscribed temporarily to a few hundred millions of English, French, German and Russian securities, pending their ultimate distribution to investors, would not determine the character and weight of the burden imposed upon the New York money market. Even if New York banks and capitalists should refuse to subscribe for a penny of the new loans, or to carry them for clients and banking correspondents abroad, they would be compelled to meet their full share of the burden imposed by the high rates for short-term money which would be reflected from other financial centers in New York, and by the very important consideration to which I shall soon advert, that

they would be compelled to take back, through the American stock exchanges, a large part of the existing investment of European capital in American securities.

Effect of the New Loans on the American Market.

The general influence upon the American money market of the flotation of the new public loans in Europe would be the disposition of foreign holders of American securities to convert them into cash, in order to apply the proceeds to subscription to their new national securities. Hence would result the "dumping" of a large volume of securities on the New York and other American stock exchanges, in a manner likely to cause serious depression in their prices. It is probably not within the power of any public body or any syndicate of bankers, in view of the facts which have been presented, to prevent the fall of quotations for first-class bonds to a price which will put them on an income basis of 5 per cent. or higher.

The rise of the return on capital to a new rate and the corresponding fall of prices of securities to a lower level are facts which are apparently inevitable. It should be possible, however, to so distribute the shock of the descent that quotations on the exchanges should oscillate around this new centre of gravity instead of plunging violently below it, even temporarily. The question whether heavy sales of American securities now held in Europe shall carry prices on the New York Stock Exchange materially below this new level of investment value should be de-

termined to some extent by the measures taken by the banking community to distribute the shock. It is not necessary for the purposes of this hearing to go at length into this question. It is a question which interests primarily the governing Board of the New York Stock Exchange, banks which have large loans outstanding on American securities as collateral, and the savings banks and insurance companies, whose assets might be seriously impaired if they were compelled to calculate them at the low prices determined during a period of selling pressure on the stock exchanges.

Leaving aside the question of averting panic, the most important question involved in the return of American securities held abroad is the manner in which it will diminish the fund of capital which is normally available for new investments. In this direction the effect of the European war loans will be acutely felt in this country, even if not a dollar of American money appears as a bidder for the new loans. It has been recently calculated by Sir George Paish, the economic advisor of the British government, that the total amount of foreign capital invested in the United States is $6,000,000,000. He also estimates that foreign capital, chiefly British, is invested in Canada to the amount of about $3,500,000,000, and in other American countries, including all Latin America, to about $10,000,000,000.

It is these enormous sums in foreign holdings which represent the most serious menace to the American market and to the possibilities of our future financial development. This money has been advanced to us from time to time over a long period, because there was not a sufficient fund in America to meet the requirements of our development. The newer states of the west could never have been equipped with railways, banks, grain elevators, barns and homes, if foreign capital had not been poured into them in hundreds of millions after our Civil War. What will be involved, in effect, if European investors undertake to market a large part of their holdings of American securities in New York, will be the conversion of this gigantic time loan, payable only over long terms of years, into a call loan, payable as rapidly as the securities can be sold on the New York Stock Exchange. It would hardly be within the range of the capacity of the banking system of the country to absorb the entire amount of $6,000,000,000, estimated by Sir George Paish to represent foreign investments in the United States. Fortunately, it is not conceivable that the entire amount could be returned. Probably a considerable proportion,—perhaps one-third,—is invested in forms which are not quickly negotiable on the stock exchanges. Further, it is not likely that more than a certain percentage even of those securities which are readily negotiable would be returned for sale here. What proportion this will be, it is beyond the power of any living man at present to determine. Even if it should amount, however, to only one-tenth of the securities which are negotiable,—say $400,000,000—it would not be an easy load for the digestion of the American money market.

The amount in such securities which is returned to the American market will influence directly the amount of investment capital remaining in the United States available for other purposes. It is at this point that the problem comes directly home to American railway managers and their bankers. If the country is subjected to a severe strain in order to take back from European holders an amount of securities representing the fund usually available for investment for one year or for several years, there will be practically no surplus left for investment in new railway issues. Here again, a question of vital importance will be how far such issues can be made attractive, not only in the rate of interest paid, but in the surplus of earnings above the operating expenses and existing fixed charges of the issuing company, which will give a complete guaranty of security to the new investments.

Decline in the Purchasing Power of Money.

Before closing, I would like to have the privilege of submitting some figures in regard to wholesale prices, which bring down to the latest available date the material which I submitted to the Commission last year, going to show the decrease in recent years in the purchasing power of money. In preparing these additional data, I have followed the same method which was employed before. In order to determine the purchasing power of money in terms of general prices, I have divided the

average freight receipts per ton mile by the index number of wholesale prices ascertained by the Department of Labor Statistics, the base line of 100 being the average prices of the years 1890-1899. These comparisons show that the purchasing power of the money received for freight fell from a ratio of 8.06 mills per ton mile in 1898 to 6.61 in 1905. Then began another decline, interrupted only by the depression of 1908, which finally carried the ratio of purchasing power of freight receipts in 1913 down to 5.39. When this purchasing power of receipts per ton-mile is compared with the corresponding figure of 1896, we find a decline of 3.53 mills, or 39.5 per cent. I conclude, therefore, simply as a question of mathematics, and without undertaking to enter into the intricacies of railway accounting or the special demands which have been made upon the railways, that the purchasing power of the moneys which are now received for freight is approximately 39½ per cent. less in the market for commodities than it was in 1896.

From 1903 to 1913 there was a decrease of 19.7 per cent. in the purchasing power of ton-mile earnings, and even from 1908 to 1913 a decline of 12.2 per cent., or more than twice the proportion in which it is asked that permission be given to advance nominal rates expressed in terms of money.

The figures upon which these calculations are based, covering the entire railway system of the United States, are as follows:

Purchasing Power of Receipts Per Ton-Mile.

Year.	Average Receipts Per Ton Mile, in Mills.	Index Number of Wholesale Prices, on Basis of 1890-1899.	Corrected Purchasing Ratio of Receipts Per Ton Mile, in Mills.
1880.....	12.32	147.5	8.35
1885.....	10.11	115.8	8.73
1890.....	9.41	112.9	8.33
1895.....	8.39	93.6	8.96
1896.....	8.06	90.4	8.92
1897.....	7.98	89.7	8.90
1898.....	7.53	93.4	8.06
1899.....	7.24	101.7	7.12
1900.....	7.29	110.5	6.60
1901.....	7.50	108.5	6.91
1902.....	7.57	112.9	6.71
1903.....	7.63	113.6	6.72
1904.....	7.80	113.0	6.90
1905.....	7.66	115.9	6.61
1906.....	7.48	122.5	6.11
1907.....	7.59	129.5	5.86
1908.....	7.54	122.8	6.14
1909.....	7.63	126.5	6.03
1910.....	7.53	131.6	5.72
1911.....	7.57	129.2	5.85
1912.....	7.43	133.6	5.56
1913*.....	7.29	135.2	5.39

* Railways of classes I and II.

Results substantially similar are obtained for the railways in eastern territory, with their generally lower average of ton-mile receipts. For the eleven-year period 1903-1913, the decline in the purchasing power of freight earnings works out at 21.2 per cent. The following table gives the calculations for railways in eastern territory:

Purchasing Power of Receipts Per Ton-Mile.

Eastern Territory.

Year.	Average Receipts Per Ton Mile, in Mills.	Index Number of Wholesale Prices, on Basis of 1890-1899.	Corrected Purchasing Ratio of Receipts Per Ton Mile, in Mills.
1903.....	6.76	113.6	5.94
1904.....	6.94	113.0	6.14
1905.....	6.73	115.9	5.80
1906.....	6.54	122.5	5.33
1907.....	6.59	129.5	5.08
1908.....	6.58	122.8	5.35
1909.....	6.54	126.5	5.17
1910.....	6.46	131.6	4.90
1911.....	6.49	129.2	5.02
1912.....	6.44	133.6	4.82
1913.....	6.34	135.2	4.68
Percentage of decline in purchasing ratio, 1903-13.....			21.2 per cent.
1908-13			12.5 per cent.

Still less favorable is the exhibit made by the receipts of the railways which are parties to the Eastern rate case. Their average receipts per ton-mile for the year

1914, as computed by the Bureau of Railway Economics, were 6.19 mills. Dividing this amount by the index number of wholesale prices for 1913,—135.2—we arrive at the corrected ratio of receipts per ton-mile of only 4.57 mills.

The figures for the whole of the Eastern territory presented in the above table show a decline in the purchasing ratio of receipts per ton-mile from 1903 to 1913 of 21.2 per cent. Even from 1908, to 1913, the decline is 12.5 per cent., or more than twice the average rate of increase in freight rates asked by the railways in the Central Freight Association territory.

Summary of Conclusions.

I think I have presented a sufficient number of facts to demonstrate that the demand for capital growing out of the existing war will cause a rise in the rate of interest on permanent investments which will continue for a considerable number of years to come, even under the most favorable auspices. Even if the cost of the war should be only two-thirds what I have estimated, and the supply of investment capital annually flowing into the investment market has been underestimated, it remains true that the demand for such capital will be so swollen by the issue of government loans that the rate of return upon capital will be very seriously affected. That this is already the case, I have endeavored to show by some of the facts which I have presented; that much worse is

kept back in regard to the decline of first-class securities in such a market as now exists in this country, is the assurance given by those best qualified to speak on the subject. Already letters have been addressed by one or two large New York banks to brokers, suggesting that the fall in the value of securities has been such since the prices reached on the day before the closing of the Stock Exchange, that the question of increasing the security deposited for loans should be seriously taken up. If it becomes necessary to issue railway securities at the present time for long terms, the rate of interest, and the selling price must be adjusted to existing conditions of the money market, even though the burden of a high interest rate may be continued by the terms of the bond over a long period of years. On the other hand, temporary financing for a year or two has been carried so far that it has proven extremely costly to the railways, and evidence has been given that it costs at the present time, including commissions and charges, from 7 to 8 per cent. a year.

Railway securities cannot be made attractive to investors, even apart from the rate of interest unless they are adequately secured. They cannot be considered adequately secured if earnings are kept so low that they barely meet fixed charges in years of prosperity and threaten a deficit in years of depression. The amount of railway securities returned to the New York market for sale, in order to obtain cash in Europe, is likely to be influenced considerably by their reputation as invest-

ments among conservative financiers. Not only must the rate be sufficient to compete successfully with the huge issues which are certain to be made by the nations now at war, but the security must be such as to inspire confidence against depreciation.

I conclude, therefore, with the assertion of the underlying principle of my argument, that if American railways are to obtain new capital during the next few years, it will be necessary to make their issues of securities attractive to the public, both in respect to the rate of interest and in respect to the evidence that the interest and dividend payments are secured by adequate earnings.

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